

BDCOM S5600 Series
Full 10GE Switches

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Product Overview

BDCOM S5600 Switch Series is a new generation of full gigabit smart switches targeted at the operator IP metropolitan area networks, government and enterprise networks, Internet cafes and diskless working environments introduced by Shanghai Baud Data Communication co., LTD. S5600 is developed on the basis of high performance hardware and BDROS - a software platform with BDCOM own independent intellectual property rights. It also supports strong ACL, selective QinQ, 1:1 and N:1 VLAN switching, Ethernet OAM, carrier QoS, and the industrial 10G Ethernet ring network. These functions make the product meet the need of various complex situations.

BDCOM S5600 Switch Series has one model S5612. It meets the need of networks of different scales.

S5612: 12 10G/gigabit auto-adaptive SFP+ optical ports, 8 gigabit RJ45 TX ports.

Product Characteristics

Industrial Ethernet Ring Network Function, Zero Delay And Zero Packet Loss

- The S5600 supports industrial Ethernet ring network protection protocol. The protection switching time is less than 50ms. The solution has been applied in power industry, rail transportation industry and military projects for decades. It can achieve zero packet loss.

Carrier Ethernet Switches

- The S5600 supports carrier Ethernet ring network protection protocol. The protection switching time is less than 50ms. It also supports simple and effective redundancy protection mechanism such as STP/RSTP/MSTP protocol and dual uplink standby link protection and LACP link aggregation. These functions meet the requirement of carrier grade high reliability.
- The S5600 has perfect Ethernet OAM, which can real time monitor the network operating state and rapidly detect and locate the malfunction.

- The S5600 supports strong ACL function. The solution supports L2~L7 data access and control based on the physical port, VLAN IDs, source MAC/IP addresses and protocol port, which provides flexible ways of policy control.
- The S5600 supports ISSU (In-Service Software Upgrade) , guaranteeing the user data non-stop forwarding when the system is upgrading.
- The S5600 supports various L2 multicast function, including user fast-leave mechanism and cross VLAN multicast replication function.

Carrier QoS Policies

- The S5600 supports complex traffic classification based on VLAN IDs, source MAC/IP addresses, destination MAC/IP addresses, IP protocols, or priorities. It also supports priority remark. These functions provide an effective way for users to optimize their businesses.
- The S5600 provides selective bandwidth control policies and support a port base or flow-based Committed Access Rate (CAR) and guarantees Layer 3 wire-speed forwarding.
- Every port supports 8 priority queues.
- The S5600 also supports multiple queue grooming algorithms such as SP, WRR or SP+WRR.

Comprehensive Ipv6 Solutions

- The S5600 comprehensively supports IPv6 Neighbor Discovery, ICMPv6、 Path MTU Discovery.
- The S5600 supports IPv6 based Ping, Traceroute, Telnet, SSH, ACL. It meets the need of IPv6 network equipment management and service control.

Complete Security Mechanisms

- The S5600 adopts advanced hardware architecture design, realizing the hierarchical scheduling and protection of the packet. It provides multiple security measures to defend against DOS or TCP attacks, and supports command line authority control based on user levels.
- Comprehensive Security Certification: The S5600 complies with IEEE 802.1x, Radius, BDTacacs+.

- The S5600 supports the suppression of broadcast, multicast and unknown unicast packet, ensuring the equipment can operate normally in harsh network conditions.
- The S5600 has the perfect loop detection mechanism.
- The S5600 supports the port isolation in a same VLAN and DHCP-Snooping, IP+MAC+ port binding.

Convenient Management and Maintenance

- The S5600 supports multiple management styles such as Console, Telnet, SSH.
- The S5600 supports WEB based management. The management is more simple and effective.
- The S5600 supports upload and download of TFTP files.
- The S5600 supports ISSU (In-Service Software Upgrade).
- The S5600 supports SNMP. By cooperating with Baud's smart NMS, functions including the equipment auto-discovery, the topology management, the equipment configuration management, the performance data analysis, and the fault management can be realized. In this way, the network management is simple and creates a new product experience for the user.

Product Specifications

Item	**S5612**
Backplane	240Gbps
Forwarding rate	180Mpps
MAC	32K
Ports	1 Mini USB Console port, 12 10GE/GE auto-adaptive SFP+ slots, 8 GE RJ45 TX ports, support key Reset
Dimensions mm (W × D × H)	442.5×315×44
Power supply	AC: 100V-240V, 50Hz±10% DC: -36V~-72V
Environment	Operating Temperature/Humidity: 0℃-50℃, 10%-90% non-condensing Storage Temperature/ Humidity: -20℃-70℃; 5%-95% non-

	condensing
MAC switching function	Static configuration and dynamically learning of MAC address Check and delete MAC address Configuring of MAC address aging time Limit on MAC address learning number MAC address filtering function The black-hole MAC items
VLAN	4K VLAN entries GVRP 1:1 and N:1 VLAN Mapping QinQ and selective QinQ Private VLAN
STP	802.1D (STP), 802.1W (RSTP), 802.1S (MSTP) BPDU protection, root protection and ring protection
Multicast	IGMP v1/v2/v3 IGMP Snooping IGMP Fast Leave Multicast Group Policy And Multicast Number Limit Multicast Traffic Cross Vlan Duplication
IPv6	ICMPv6, DHCPv6, ACLv6, IPv6 Telnet IPv6 Neighbor Discovery Path MTU Discovery MLD v1/v2 MLD Snooping
QoS	Traffic classification of L2~4 protocol headers CAR traffic control 802.1P/DSCP priority remark Multiple queuing algorithms such as SP, WRR or SP+WRR Tail-Drop, WRED Traffic supervision and traffic shaping
Security features	Identification and filtering of L2/L3/L4 based ACL Defend against DOS or TCP attacks Suppression of broadcast, multicast and unknown unicast packet.

	Port isolation Port security, IP+MAC+port binding DHCP Snooping, DHCP Option 82 IEEE 802.1x certification Radius, bdtacacs+ Command line authority control based on user levels
Reliability	Static LACP link aggregation EAPS, ERPS ISSU
Management	Console, Telnet, SSH WEB based management SNMP v1/v2/v3 Upload and download of TFTP files RMON

Ordering Information

Item	Description
S5600 Series	
S5612	Ethernet managed switch with 12 10GE SFP ports and 8 GE TX ports (1 Console port, 12 10GE/GE auto-adaptive SFP+ ports, 8 GE TX ports; 220V AC power supply, dual power supplies; the cooling fan, 1U, standard 19-inch rack-mounted installation)
Optical Modules	
Gigabit Optical Modules	
GSFP-TX-B	Gigabit SFP optical ports transfers to RJ45 TX port modules
GSFP-SX-D	Gigabit SFP multi-mode（500m, 850nm, LC, DDM)
GSFP-LX-10-D	Gigabit SFP single mode (10Km, 1310nm, LC, DDM)
GSFP-LX-20-D	Gigabit SFP single mode (20Km, 1310nm, LC, DDM)
GSFP-LX-40-D	Gigabit SFP single mode (40Km, 1310nm, LC, DDM)
GSFP-ZX-80-D	Gigabit SFP single mode (80Km, 1550nm, LC, DDM)
GSFP-LX-SM1310-10-BIDI	Gigabit SFP single mode, single-core bidirectional (10Km,

	TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-10-BIDI	Gigabit SFP single mode, single-core bidirectional (10Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-20-BIDI	Gigabit SFP single mode, single-core bidirectional (20Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-20-BIDI	Gigabit SFP single mode, single-core bidirectional (20Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1310-40-BIDI	Gigabit SFP single mode, single-core bidirectional (40Km, TX1310/RX1550, LC, DDM)
GSFP-LX-SM1550-40-BIDI-1310	gigabit SFP single mode, single-core bidirectional (40Km, TX1550/RX1310, LC, DDM)
GSFP-LX-SM1490-80-BIDI	Gigabit SFP single mode, single-core bidirectional (80Km, TX1490/RX1550, LC, DDM)
GSFP-LX-SM1550-80-BIDI	Gigabit SFP single mode, single-core bidirectional (80Km, TX1550/RX1490, LC, DDM)
10G Optical Modules	
SFP+SX	10G SFP multi-mode（300m, 850nm, LC）
SFP+LX-10	10G SFP single mode (10Km, 1310nm, LC, DDM)
SFP+LX-20	10G SFP single mode (20Km, 1310nm, LC, DDM)
SFP+LX-40	10G SFP single mode (40Km, 1550nm, LC, DDM)
SFP+LX-80	10G SFP single mode （80Km, 1550nm, LC, DDM）

For More Information

For more information about BDCOM S5600 Series, please contact your local BDCOM account representative.

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